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Three new phragmosporous hyphomycetes on *Ripogonum* from an 'ecological island' in New Zealand

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Abstract — *Corynespora ripogoni* sp. nov., *Ellisembia maungatautari* sp. nov., and *Solicorynespora maungatautari* sp. nov., found on dead stems of *Ripogonum scandens* in New Zealand, are illustrated and described, and compared with related taxa. Two other hyphomycetes are recorded from New Zealand for the first time.

Key words — anamorphic fungi, deuteromycetes, *Ellisembia bambusicola*, *Sporidesmiella parva*, taxonomy

Introduction

Maungatautari Ecological Island is a mainland conservation 'island' in central North Island, New Zealand. It is surrounded by 47 km of pest-proof fence, which was completed in August 2006. Except for a few isolated mice, all mammalian pests within the fence have been eradicated. The first of several threatened species of bird have been re-introduced to the area. During a visit to a small part of the reserve some dead stems of the liana, *Ripogonum scandens* J.R. Forst. & G. Forst. (*Smilacaceae*), were collected. Several phragmosporous species of hyphomycetes were identified from the stems, including three new species that are described below.

Materials and methods

Dead stems of *Ripogonum scandens* were collected from a forested area in the Maungatautari Ecological Island. The stems were incubated under humid conditions and periodically examined for sporulating microfungi. Fungal fruiting structures were removed, mounted in lactophenol or water, and examined by light microscopy. Measurements were made on material mounted in lactophenol. Dried herbarium specimens of the fungi were prepared and deposited in the New Zealand Fungal Herbarium (Herb. PDD). Some other specimens of fungi on *R. scandens* and *R. album* R. Br. (from Australia) held in Herb. PDD were also examined. All of the taxa are treated in alphabetical order by genus.

Table 1. Major morphological features of *Corynespora* species described since Siboe et al. (1999)

Species[1]	Conidia					Host/ substratum
	Production	Morphology[2]	Colour	Size (µm)	Septation	
acalyphae	Solitary	Obclavate, rostrate	Pale brown to brown	85–120 × 9–11	8–16	*Acalypha*, Indonesia
albiziicola	Solitary	Obclavate, ellipsoid, or clavate	Pale olivaceous yellow	20–70.1 × 10–18.5	1–6	*Albizia*, India
aquatica	Solitary	Obclavate to cylindric	Pale brown	34–46 × 3–4.5	(1–)2(–3)	Leaves, Mexico
asclepiadacearum	Mostly solitary	Obclavato-cylindric to cylindric	?Pale	44–192 × 10–25	Up to 26	*Cryptolepis*, India
azadirachtiana	Solitary or catenate	Obclavate	Pale yellow	32–303.5 × 7–21.5	1–20	*Azadirachta*, India
barleriicola	Solitary	Obclavate to cylindric	Olivaceous yellow	41–246 × 10–18.5	3–14	*Barleria*, India
beilschmiediae	Solitary	Obclavate	Pale brown to brown	52–144.5 × 8.5–11	7–19	*Beilschmiedia*, China
bombacearum	Solitary or catenate	Obclavato-cylindric to cylindric	Pale to mid olivaceous	26–206 × 8.5–17	Up to 15	*Bombax*, India
caroytae	Solitary	Obclavate-elongate	Pinkish brown	45–120 × 6–10	Up to 18	*Caryota*, Singapore
cassiae	Solitary	Obclavate	Pale brown to olivaceous brown	107.5–214 × 11–14	10–21	*Cassia*, China
catenulata	Solitary or catenate	Obclavate to obclavato-cylindric	Dark olivaceous yellow to pale olivaceous brown	27.5–225.5 × 11–19	1–24	*Clerodendrum*, India
colebrookiana	Solitary or catenate	Obclavate, rarely cylindric	Pale yellow	45–330 × 6–22	4–16	*Colebrookia*, India
cucurbiticola	Solitary or catenate	Obclavato-cylindric	Subhyaline to pale olivaceous	38.5–230 × 6.5–20	6–23	*Coccinia*, Nepal
curvispora	Solitary or catenate	Narrow obclavate	Straw-coloured to mid brown	40–250 × 10–12	5–10	Herbaceous stems, USA
donacis	Solitary	Obclavate	Olivaceous brown	45–70 × 8–12	10–14	*Donax*, China
erythropsidis	Solitary	Ellipsoid, doliiform to broad clavate	Pale brown to olivaceous brown	25–31 × 9–12	4	*Erythropsis*, China
euryae	Solitary	Obclavate	Pale brown to brown	36–67 × 6–9	5–9	*Eurya*, China
fici-altissimae	Solitary	Obclavate, rostrate	Dark brown	55–85 × 9–12	11–18	*Ficus*, China
fici-benjaminae	Solitary	Obclavate	Pale olivaceous brown	51.5–71 × 8–11	5-10	*Ficus*, China
flagellata	Solitary	Obclavate, rostrate; smooth or verrucose	Dark brown	50–100 × 9–11	5–10	*Citrus*, Ghana
gorakhpurensis	Solitary	Obclavate to ellipsoid	Pale olivaceous yellow	21–157 × 13–20	3–13	*Erythrina*, India

gracilis	Solitary	Cylindric to obclavate	Olivaceous	92–138 × 5–7	10–22	*Piper*, Indonesia
gymnocladi	Solitary	Obclavate	Brown to dark brown	15–40 × 7–10.5	2–6	*Gymnocladus*, China
hamata	Solitary	Obclavate, hamatate at apex	Pale olivaceous brown	158–198 × 9–11	14–19	Dead wood, Indonesia
holopoteleae	Solitary or catenate	Obclavato-cylindric to cylindric	Mid olivaceous	23–234 × 3.6–19.5	0–17	*Holoptelea*, India
jasminicola	Solitary	Obclavate	Pale olivaceous	39.5–176 × 10–21	2–18	*Jasminum*, Nepal
kenyensis	Solitary	Obclavate to obpyriform, +/- rostrate	subhyaline to pale brown	60–125 × 16–25	8–15	*Sericostachys*, Kenya
keskaliicola	Solitary or catenate	Obclavato-cylindric to cylindric	Mid olivaceous	64–164 × 16–28	Up to 17	*Hemidesmus*, India
laevistipitata	Solitary	Broadly ellipsoid	Red-brown	17.5–24 × 7–8	(0–)1–2 (–3)	*Pertusaria* (lichen), USA
lasianthi	Solitary	Obclavate, sometimes rostrate	Pale brown to dark brown	50–103.5 × 8.5–10	4–8	*Lasianthus*, China
leucaenae	Solitary	Obclavate, obovoid or ellipsoid	Pale yellow	16–298 × 10–19	1–28	*Leucaena*, India
litseae	Solitary	Obclavate	Pale brown to olivaceous brown	105–235 × 10–12	14–34	*Litsea*, China
merrilliopanacis	Solitary	Obclavate, rostrate	Straw coloured to brown	130–260 × 17–21	12–25	*Merrilliopanax*, China
micheliae	Solitary	Obclavate, rostrate	Subyhaline to brown	333–360 × 15–19	12–28	*Michelia*, China
morindae-tinctoriae	Solitary	Obclavate	Pale olivaceous	44–127 × 15–26.5	6–15	*Morinda*, India
myrioneuronis	Solitary	Obclavate	Pale brown to brown	30–46 × 6.5–8	3–4	*Myrioneuron*, China
nana	Solitary	Obclavate	Subhyaline to pale olivaceous brown	49.5–110 × 9–18.5	4–14	*Lantana*, India
parapyrenariae	Solitary	Obclavate	Pale brown to brown	70–100 × 11–14	5–9	*Parapyrenaria*, China
parvispora	Solitary	Ovoid	Brown	13–15 × 4.5–7.5	1–2	*Gynotroches*, Singapore
pedaliacearum	Solitary or catenate	Obclavato-cylindric to slightly acicular	Pale olivaceous	16–163 × 3.2–6	3–28	*Sesamum*, India
phylloshureae	Solitary	Obclavate	Brown	30–50 × 8–10	6–10	*Phyllostachys*, China
premnigena	Solitary or catenate	Obclavate to obclavato-cylindric	Subhyaline to pale yellow	52–265 × 10–15	1–19	*Premna*, India
rhapidis-humilis	Solitary	Obclavate, rostrate	Pale to olivaceous brown	90–130 × 6–8	12–16	*Rhapis*, China
rhododendri	Solitary	Obclavate to long rostrate	Pale brown to olivaceous brown	180–400 × 7.5–11	19–36	*Rhododendron*, China
ripogoni	Solitary	Obclavate	Brown	60–160 × 10–13.5	7–15	*Ripogonum*, New Zealand

Table 1, concluded.

Species[1]	Conidia					Host/ substratum
	Production	Morphology[2]	Colour	Size (µm)	Septation	
rosacearum	Solitary or catenate	Obclavate to obclavato-cylindric	Subhyaline to pale olivaceous	26.5–269 × 9.18.5	1–18	*Eriobotrya*, India
sacchari	Solitary	Obclavate, rostrate; verrucose or smooth	Pale brown to olivaceous brown	80–120 × 8–9	10–14	*Saccharum*, China
schleichericola	Solitary or catenate	Obclavate	Pale olivaceous	22.5–66 × 3.8–8.5	1–12	*Schleichera*, India
scolopiae	Solitary	Obclavate	Pale brown to brown	90–150 × 10–13	8–11	*Scolopia*, China
sed-acaciae	Solitary	Obclavate	Pale brown to olivaceous brown	40–70 × 11–13.5	8–12	*Acacia*, China
solani	Solitary or catenate	Obclavate to cylindric	Olivaceous yellow	80.6–276 × 8–10	1–17	*Solanum*, India
subcylindrica	Catenate	Broadly ellipsoid, subcylindrical	Pale brown	18–60(–90) × 5–13	0–3(–6)	*Lippia*, Brazil
supkharii	Solitary	Obclavate	Pale olivaceous	22.5–142.5 × 10–17.5	2–11	*Phyllanthus*, India
tanaceti	Solitary	Obclavate; smooth or verruculose	Pale brown to olivaceous brown	60–104 × 12–16	7–12	*Tanacetum*, China
tectonae	Solitary	Obclavate, rostrate; verrucose or smooth	Pale brown to olivaceous brown	110–160 × 10–12	12–18	*Tectona*, China
toonae	Solitary	Obclavate, rostrate	Pale brown to dark brown	65–144 × 7–9	4–14	*Toona*, China
tremicola	Solitary	Obclavate to ellipsoid	Pale olivaceous	104–296 × 11–16	1–12	*Trema*, India
trichoides	Solitary	Obclavate-cylindric or obclavate	Pale olivaceous	29–170 × 10–15	3–14	*Triumfetta*, Nepal
ulmacearum	Solitary	Obclavate	Subhyaline to pale olivaceous	15–106 × 3.5–10	2–16	*Trema*, India
viticola	Solitary or catenate	Obclavate, cylindric to obovoid	Pale olivaceous	34–170 × 7–17.5	1–14	*Cayratia*, India
ziziphae	Solitary	Obclavato-cylindric, cylindric, or clavate	Mid olivaceous to straw coloured	33–215 × 10–27	Up to 15	*Ziziphus*, India

[1] All conidiophores are mononematous and non-stromatic, except for *C. asclepiadacearum* and *C. caroytae*, which are stromatic.
[2] All conidia are smooth, except where indicated.

Taxonomy

Corynespora

The genus *Corynespora* Güssow is characterised by distoseptate phragmoconidia that are produced through an apical pore in the terminal conidiogenous cell. The conidiogenous cell may proliferate one or more times. The conidia are usually produced singly, but in some species short chains of conidia may form. Siboe et al. (1999) provided a synoptic table of the main morphological features that distinguish 50 accepted species of *Corynespora*. Surprisingly, they omitted their own new species, *C. kenyensis* Siboe et al., from the table. Since then another 61 species have been described in the genus, including a new species, which is described below. To assist with the identification of these additional species, their morphological features are presented in Table 1, in a similar format to that used by Siboe et al. (1999). Twenty-three of the new species were described from India or Nepal as the cause of leaf spots on a wide variety of plants (Meenu et al. 1998, Singh et al. 2000, Jain et al. 2002, Sharma et al. 2002a,b, 2003, 2005, Dubey & Rai 2003). From the descriptions and drawings all 23 species appear to be very similar to the common cosmopolitan species, *C. cassiicola* (Berk. & M.A. Curtis) C.T. Wei. *Corynespora cassiicola* is well known to produce leaf spots on *Carica papaya* and *Cucumis sativus*, and on many other species of plants. A further 22 species have been described from China, principally on dead branches (e.g., Zhang & Xu 2005, Zhang et al. 2009).

Corynespora ripogoni McKenzie, **sp. nov.** Fig. 1

MycoBank: MB 513214

Coloniae in substrato naturali pilosae, nigrae. Mycelium ex hyphis plerumque in substrato immersum, ramosis, septatis, laevibus, pallide brunneis, tenuitunicatis, 1.5–3.5 µm crassis compositum. Conidiophora macronematosa, mononematosa, erecta, recta vel flexuosa, nonramosa, plerumque 5–7-septata, brunnea, crassitunicata, laevia, 50–115 longa, 6–7 µm crassa, interdum per 1 proliferatione elongascentia. Cellulae conidiogenae monotreticae, in conidiophoris incorporatae, terminales, determinatae, cylindricae, 14–25 µm longa, 4.5–6 µm crassa. Conidia solitaria, sicca, acrogena, brunnea, apicem versus pallidiora, laevia, obclavatae, recta vel leviter flexuosa, 60–180 longa, 10–13.5 µm crassa, apicem versus ad 3–6 µm attentuata, basi truncata 3.5–4.5 µm lata, 7–15-distoseptata, ad septa saepe leniter constricta.

Etymology: named after the host substrate, *Ripogonum*.

Type: NEW ZEALAND, Waikato, near Pukeatua, Maungatautari Ecological Island, on dead stems of *Ripogonum scandens* (*Smilacaceae*), 12 November 2007, E.H.C. McKenzie (PDD 93526, **holotype**).

Colonies on natural substrate hairy, black, consisting of large numbers of individual conidiophores. Mycelium mainly immersed in the substratum. Hyphae branched, septate, smooth, pale brown, thin-walled, 1.5–3.5 µm diam. Conidiophores differentiated, single, erect, straight or flexuous, unbranched,

Fig. 1. Conidia and conidiogenous cells of *Corynespora ripogoni* (from holotype). Specimens mounted in hydrous lactophenol. Scale bar = 20μm.

mainly 5–7-septate, brown, thick-walled, smooth, 50–115 μm long, 6–7 μm wide above base, 4.5–6 μm wide at apex, sometimes with 1 percurrent, enteroblastic apical proliferation. Conidiogenous cells monotretic, integrated, terminal, determinate, cylindrical, 14–25 μm long, 4.5–6 μm wide. Conidia solitary, dry, acrogenous, brown, paler towards the apex, smooth, obclavate, straight or slightly curved, 60–180 μm long, 10–13.5 μm wide in the broadest part (mean = 105.9 × 11.5 μm, n = 25), 3–6 μm wide near apex, 3.5–4.5 μm wide at the protruding truncate base, 7–15-distoseptate, often slightly constricted at some septa (particularly at second septum from base) giving a wavy outline to conidia.

Comments: Several species of *Corynespora* have obclavate conidia that are similar to the conidia of *C. ripogoni* (see Ellis 1971, Siboe et al. 1999, Zhang & Xu 2005). However, *C. ripogoni* can be distinguished from other species by overall shape of the conidia, number of septa, and its conidial dimensions, in particular conidial width. It is morphologically quite distinct from *C. cassiicola*.

Ellisembia

The genus *Ellisembia* Subram. is characterised by the formation of solitary, holoblastic conidia on unbranched conidiophores that may undergo percurrent proliferation. The conidia are phragmosporous, often with numerous cells, pale to dark brown or almost black (Subramanian 1992, Wu & Zhuang 2005). Many species of *Ellisembia* were formerly included in *Sporidesmium*. The conidia of *Ellisembia* are distoseptate whereas those of *Sporidesmium* are euseptate (Ellis 1958, 1971, Subramanian 1992, McKenzie 1995). However, *Sporidesmium* and morphologically similar genera, such as *Ellisembia*, are polyphyletic and distributed throughout two major ascomycete classes (Shenoy et al. 2006). The relationships of the New Zealand species are unknown. Robert et al. (2005) list 43 specific names under *Ellisembia*. The species are distinguished primarily on conidial morphology and size (Ellis 1971, Subramanian 1992, Wu & Zhuang 2005). A large-spored specimen collected on *Ripogonum scandens* in New Zealand is distinct from all other known species and is described below. In addition, two other species of *Ellisembia* were found on *R. scandens* in the Maungatautari Ecological Island.

Ellisembia adscendens (Berk.) Subram., Proc. Indian Acad. Sci. B 58 183 (1992).

≡ *Sporidesmium adscendens* Berk., Ann. Mag. Nat. Hist. 4: 291 (1840).

Specimens examined: NEW ZEALAND, Auckland, St Heliers Bay, Dingle Dell, on *R. scandens*, 16 April 2004, E.H.C. McKenzie (PDD 80287). Waikato, near Pukeatua, Maungatautari Ecological Island, on *R. scandens*, 12 November 2007, E.H.C. McKenzie (PDD 93263). AUSTRALIA, Queensland, Bunya Mountain National Park, Westcott Plain, on *R. album*, 23 November 1995, E.H.C. McKenzie (PDD 65302).

Comments: This species is widely distributed, usually on woody substrates (Ellis 1971, McKenzie 1995, Wu & Zhuang 2005). In New Zealand it is known only from the northern part of the country on both native and introduced plants.

Ellisembia bambusicola (M.B. Ellis) J. Mena & G. Delgado, in Mena-Portales et al., Boln Soc. Micol. Madrid 25: 266 (2000).

≡ *Sporidesmium bambusicola* M.B. Ellis, Mycol. Pap. 70: 34 (1958).

Specimen examined: NEW ZEALAND, Waikato, near Pukeatua, Maungatautari Ecological Island, on *R. scandens*, 12 November 2007, E.H.C. McKenzie (PDD 94155).

Conidiophores brown, up to 75 µm long, 7.5 µm wide at base tapering to 4.3 µm wide near apex. Conidia brown, 80–110 µm long, 11.5–14 µm wide

at widest point, apex 3.5–5 µm wide, base 4.5–6 µm wide, 10–18-distoseptate, septa averaging 6.3 µm apart.

Comments: The conidial dimensions of the New Zealand specimen are very similar to those given by Ellis (1958) and Wu & Zhuang (2005). Ellis (1958) described the conidia as being 11–25-distoseptate and measuring 65–125 × 11–14 µm, 3–6 µm wide at the apex, and 4–5.5 µm wide at the base. He also stated that the septa averaged 6.2 µm apart. Wu & Zhuang (2005) gave similar measurements, reporting the conidia as 12–20-distoseptate, 60–130 × 13–15 µm, 5–10 µm wide at the apex, and 4–6 µm wide at the base.

This species has not been previously recorded in New Zealand. Superficially the conidia appear similar to those of *E. maungatautari*, especially in overall shape and in the shape of the conico-truncate base. However, the conidia of *E. bambusicola* are considerably smaller and lack the long, hyaline beak. *Ellisembia bambusicola* was originally described on bamboo culms from west Africa. The teleomorph, *Miyoshiella fusispora* Kawam., was described from Japan (Réblová 1999), where it is reported to cause black spots on bamboo. The fungus is also recorded from Cuba, Mexico, USSR, India, Hong Kong, and China (Wu & Zhuang 2005, Farr et al. 2009). Most records are on members of the *Poaceae* and *Arecaceae*, although there are reports of the fungus on unidentified branches and trunks (Mena-Portales et al. 2000).

Ellisembia maungatautari McKenzie, **sp. nov.** Fig. 2

MycoBank: MB 513215

Coloniae in substrato naturali pilosae, nigrae. Mycelium ex hyphis plerumque in substrato immersum. Conidiophora macronematosa, mononematosa, erecta, recta vel flexuosa, nonramosa, 0–1(–2)-septata, atro-brunnea, crassitunicata, laevia, 15–65 µm longa, 5–9 µm crassa. Cellulae conidiogenae monoblasticae, in conidiophoris incorporatae, terminales, determinatae, cylindricae, 10–45 µm longa, 6–9 µm crassa. Conidia solitaria, sicca, acrogena, brunnea, plerumque rostrata, laevia vel verruculosis, cylindrica vel obclavata, recta vel leviter flexuosa, 85–125 µm longa (rostrum exclusa), 170–275 µm longa (rostrum inclusa), 13–15 µm crassa, apice acuta, ad basim conico-truncata, 5–7 µm lata, apicem versus ad 0.5–3.5 µm attentuata, 17–23-distoseptata; cellulis basalibus 1 vel 2 majoribus, atro-brunneis; cellulis apicalibus gradatim palliidioribus.

Etymology: named after the type locality, Maungatautari Ecological Island.

Type: NEW ZEALAND, Waikato, near Pukeatua, Maungatautari Ecological Island, on dead stems of *Ripogonum scandens* (*Smilacaceae*), 12 November 2007, E.H.C. McKenzie (PDD 93259).

Colonies on natural substrate hairy, black, consisting of large numbers of individual conidiophores. Mycelium mainly immersed in the substratum. Conidiophores differentiated, single, erect, straight or flexuous, unbranched, 0–1(–2)-septate, dark brown, thick-walled, smooth, 15–65 µm long, sometimes of uneven width, 5–6.5 µm wide at apex, 7.5–9 µm wide at mid

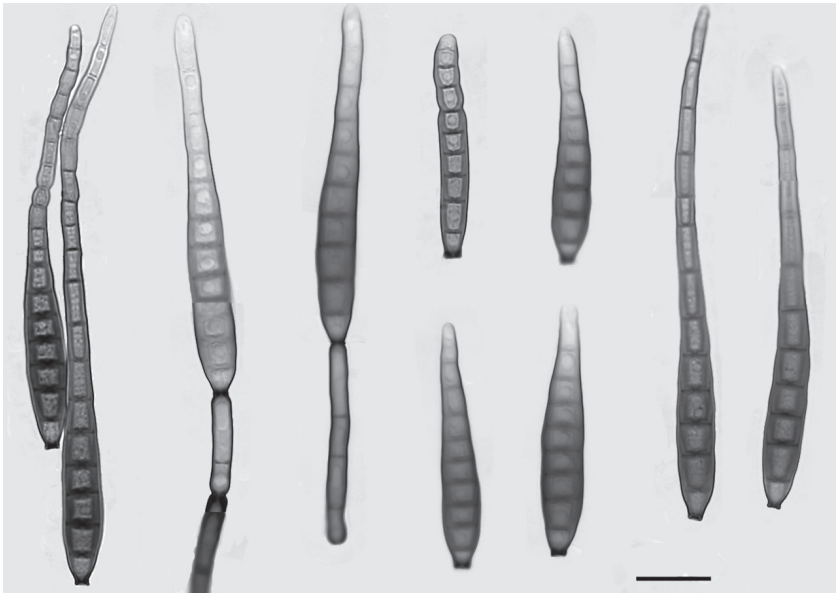

Fig. 2. Conidia and conidiogenous cells of *Ellisembia maungatautari* (from holotype). Specimens mounted in hydrous lactophenol. Scale bars = 20µm.

point. Conidiogenous cells monoblastic, integrated, terminal, determinate, cylindrical, 10–45 µm long, 6–9 µm wide. Conidia solitary, dry, acrogenous, brown, 1 or 2 basal cells dark brown, usually rostrate, beak very pale brown, smooth or verruculose, cylindrical or obclavate, straight or slightly curved, 85–125 µm long (mean = 105 µm, n = 25) excluding the beak, 170–275 µm long (mean = 234 µm, n = 15) including the beak, 13–15 µm wide in the broadest part (mean = 14.0 µm, n = 25), 5.5–8 µm wide at apical septum, 5–7 µm wide at the conico-truncate base, 17–23-distoseptate; beak 50–80 µm long, 1.5–3.5 µm wide at base tapering to 0.5–3.5 µm wide at apex.

Comments: Several species of *Sporidesmium* sensu lato have conidia with a filiform beak or appendage including *S. magnibrachypus* Matsush., *S. malayasianum* Subram., *S. ochnae* Cheng K. Shi & X.G. Zhang, *S. pruni* Jian Ma & X.G. Zhang, *S. queenslandicum* Matsush., and *S. rhaphidophorae* K. Zhang & X.G. Zhang. These species are compared with *E. maungatautari* (Table 2). *Ellisembia maungatautari* most closely resembles *S. malayasianum* in overall shape, size and colour of the conidia. However, the conidia of *S. malayasianum* are euseptate (Subramanian 1994/95), whereas those of *E. maungatautari* are distoseptate.

Table 2. Comparison of *Ellisembia maungatautari* with some morphologically similar species of *Sporidesmium* sensu lato.

Species	Conidia				Host/ substratum
	Septation	Morphology	Size (µm)	Base (µm)	
S. magnibrachypus	9–14 distoseptate	Cylindro-fusiform	48–80* × 12–15.5	3–4 (–5)	Wood, Japan
S. malayasianum	10–17 euseptate	Long subcylindrical to long-subobclavate	160–210 × 10–14	6–9	Palm rachis, Malaysia
E. maungatautari	17–23 distoseptate	Cylindrical to obclavate	170–275 × 13–15	5–7	*Ripogonum*, New Zealand
S. ochnae	8–11 distoseptate	Obclavate	80–110 × 10–12	4–6	*Ochna*, China
S. pruni	5–8 distoseptate	Fusiform	45–87 × 8.5–10.5	2–3.6	*Prunus*, China
S. queenslandicum	10–14 distoseptate	Subulate-cylindrical	60–84 × 7–9	ca 4	*Archontophoenix*, Australia
S. rhaphidophorae	14–17 euseptate	Obclavate	93–200 × 12–16.5	4–5.5	*Rhaphidophora*, China

* excluding beak, which is 60–80 µm long

Helminthosporium palmigenum Matsush., Microfungi Sol. Is. PNG: 30 (1971).

Specimens examined: NEW ZEALAND, Auckland, Waitakere Ranges, Spragg Bush, on *R. scandens*, November 2007, E.H.C. McKenzie (PDD 54913); Henderson, Corban Estate, banks of Shona Stream, on *R. scandens*, 26 March 2006, E.H.C. McKenzie (PDD 77148).

Comments: This species was first described from Solomon Islands on coconut palm (Matsushima 1971). Since then it has been recorded on several palm genera in Cuba, Venezuela, Taiwan, and Australia (Farr et al. 2009). Surprisingly, in New Zealand *H. palmigenum* is very common on *Ripogonum scandens*; Hughes (1978) cited seven specimens on this host. No specimen was kept from a scant collection from Maungatautari Ecological Island.

Helminthosporium velutinum Link, Ges. Naturf. Freunde Berlin Mag. 3: 10 (1809).

Specimens examined: NEW ZEALAND, Waikato, near Pukeatua, Maungatautari Ecological Island, on *R. scandens*, 12 November 2007, E.H.C. McKenzie (PDD 93261). Gisborne, Te Urewera National Park, Waikaremoana, Tawa Track, on *R. scandens*, 11 May 2001, E.H.C. McKenzie (PDD 74074, 74080). AUSTRALIA, Queensland, Bunya Mountains National Park, Westcott Plain, on *R. album*, E.H.C. McKenzie (PDD 65299).

Comments: This cosmopolitan species was first recorded from New Zealand by Hughes (1978) on dead wood and bark of several species of native and introduced plants, including *Ripogonum scandens*.

Pseudospiropes simplex (Kunze) M.B. Ellis, Dematiaceous hyphomycetes: 260 (1971).

Specimens examined: NEW ZEALAND, Auckland, Waitakere Ranges, Spragg Bush, on *R. scandens*, 23 May 1996, E.H.C. McKenzie (PDD 73905). Coromandel, Kauaeranga Valley, Moss Creek Hut Track, on *R. scandens*, 30 August 1986, E.H.C. McKenzie (PDD

52309). Waikato, Mt Pirongia, on *R. scandens*, 21 May 1988, E.H.C. McKenzie (PDD 65789); near Pukeatua, Maungatautari Ecological Island, on *R. scandens*, 12 November 2007, E.H.C. McKenzie (PDD 93266). Wanganui, Kai Iwi, Bushy Park, on *R. scandens*, 15 May 1987, E.H.C. McKenzie (PDD 53614).

Comments: This fungus is common and widespread in New Zealand on wood and bark of a broad range of native and introduced plants (Hughes 1978). It has been recorded previously on *Ripogonum scandens* in New Zealand (Hughes 1978). It is also known from North America, Europe, Africa, and China (Ellis 1971, Shang & Zhang 2007).

Solicorynespora

The genus *Solicorynespora* R.F. Castañeda & W.B. Kendr. was erected to accommodate those *Corynespora*-like species that have euseptate rather than distoseptate conidia (Castañeda Ruíz & Kendrick 1990). While such a character probably does not provide a phylogenetic distinction, it is useful to be able to morphologically divide a relatively large genus such as *Corynespora* into smaller units. Such an approach is followed with *Ellisembia*, which is the distoseptate equivalent of *Sporidesmium*, although the complex has been shown to be polyphyletic (Shenoy et al. 2006). Castañeda Ruíz et al. (2004) provided a key to eight species of *Solicorynespora*, but inexplicably omitted the type species, *S. zapatensis* R.F. Castañeda & W.B. Kendr. and *S. garciniae* (Petch) G. Delgado & J. Mena. Recently, *Corynespora foveolata* (Pat.) S. Hughes was transferred to *Solicorynespora* (Shirouzu & Harada 2008). A new species from Maungatautari Ecological Island is described below.

Solicorynespora maungatautari McKenzie, **sp. nov.** Fig. 3

MycoBank: MB 513216

Coloniae in substrato naturali effusae, pilosae, nigrae. Mycelium ex hyphis plerumque in substrato immersum, ramosis, septatis, laevibus, luteus vel pallide brunneis, tenuitunicatis, 1.5–2 µm crassis compositum. Conidiophora macronematosa, mononematosa, erecta, recta vel flexuosa, nonramosa, septata, atro-brunnea, apicem versus pallidiora, crassitunicata, laevia, 55–120 µm longa, 3.5–4.5 µm crassa, interdum per 1–2 proliferatione elongascentia. Cellulae conidiogenae monotreticae, in conidiophoris incorporatae, terminales, determinatae, cylindricae, 12–21 µm longa, 3.5–4.5 µm crassa. Conidia solitaria, sicca, acrogena, brunnea, laevia, obclavata vel fusiforma, recta vel leviter flexuosa, 22–41 µm longa, 4.5–6.5 µm crassa, apice acuta, ad basim conico-truncata, 2–2.5 µm lata, apicem versus ad 2–3 µm attentuata, (3–)4–5(–6)-euseptata; cellulis basalibus 2 vel 3 majoribus, brunneis; cellulis apicalibus gradatim palliidioribus.

Etymology: named after the type locality, Maungatautari Ecological Island.

Type: NEW ZEALAND, Waikato, near Pukeatua, Maungatautari Ecological Island, on dead stems of *Ripogonum scandens* (*Smilacaceae*), 12 November 2007, E.H.C. McKenzie (PDD 93262, **holotype**).

Colonies on natural substrate effuse, hairy, black, covering large areas of stem. Mycelium mainly immersed in the substratum. Hyphae branched,

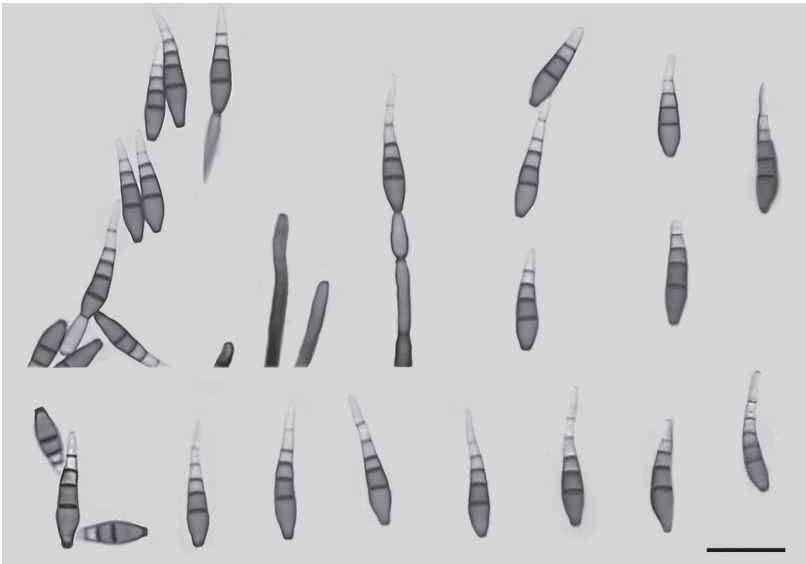

Fig. 3. Conidia and conidiogenous cells of *Solicorynespora maungatautari* (from holotype). Specimens mounted in hydrous lactophenol. Scale bar = 20μm.

septate, smooth, yellowish to pale brown, thin-walled, 1.5–2 μm diam. Conidiophores differentiated, single, erect, straight or flexuous, unbranched, septate, dark brown, paler towards apex, thick-walled, smooth, 55–120 μm long, 3.5–4.5 μm wide near base, sometimes with 1–2 percurrent, enteroblastic, apical proliferations. Conidiogenous cells monotretic, integrated, terminal, determinate, cylindrical, 12–21 μm long, 3.5–4.5 μm wide. Conidia solitary, dry, acrogenous, lower 2 or 3 cells brown, other cells paler, smooth, obclavate to fusiform, gradually tapered to an obtuse apex, more abruptly tapered to a protruding truncate base, straight or slightly curved, 22–41 μm long, 4.5–6.5 μm wide in the broadest part (mean = 30.2 × 5.9 μm, n = 25), 2–2.5 μm wide at the base, 2–3 μm wide near apex, (3–)4–5(–6)-euseptate.

Comments: *Solicorynespora maungatautari* is morphologically most similar to *S. mulanjeensis* (B. Sutton) R.F. Castañeda et al., although conidia of the latter species are much larger (56–71 × 10–12.5 μm) with more septa (5–8-euseptate).

Sporidesmiella parva (M.B. Ellis) P.M. Kirk, Trans. Br. Mycol. Soc. 79: 486 (1982) var. ***parva***.

≡ *Endophragmia parva* M.B. Ellis, More dematiaceous hyphomycetes: 138 (1976).

Specimen examined: NEW ZEALAND, Waikato, near Pukeatua, Maungatautari Ecological Island, on *R. scandens*, 12 November 2007, E.H.C. McKenzie (PDD 93260).

Conidiophores 85–150 µm long, swollen at base up to 9 µm wide, 3.5–4 µm wide above the base tapering to 2.5–3 µm at the apex. Conidia 16.5–20.5 × 3–5.5 µm, 1-distoseptate.

Comments: Ellis (1976) described the conidia of *S. parva* as being 1–2-distoseptate and measuring 15–18 × 3–4 µm. Kirk (1982) gave slightly broader conidial dimensions of (12–)13–18.5(–20) × 2.5–4 µm and said the conidia were 1(–2)-distoseptate. In his illustration Kirk drew only one conidium with two septa. When mounted in lactophenol, conidia from the New Zealand specimen appeared to be more than 1-distoseptate; however, in water they were all obviously 1-distoseptate. Wu & Zhuang (2005) recorded conidia from Chinese collections as 16–20 × 2.5–3 µm and 1–2-distoseptate. *Sporidesmiella parva* has been recorded on a range of host plants from various parts of the world including Cuba, UK, USSR, Malaysia, China, and Japan (Wu & Zhuang 2005). This is the first record of this species from New Zealand.

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